

ABSTRACT OF THE DISCLOSURE

The invention provides an iron-based cleaning powder capable of efficiently decomposing organic halides. The iron-based cleaning powder is made of iron alloy powder or iron powder produced with an atomization process. The iron alloy powder passes a 300 μm -mesh sieve at a proportion of not less than 90% and has an H_2 -reduction mass loss of 0.1 to 0.8% when it contains 0.3 to 1.1% of Mn. When the iron alloy powder contains 0.2 to 12% of Ni, it has an H_2 -reduction mass loss of 0.1 to 1.0%. The iron powder is used as mixed powder or partially alloyed powder together with Ni-containing powder. The iron powder passes a 300 μm -mesh sieve at a proportion of not less than 90% and has an H_2 -reduction mass loss of 0.1 to 1.0%. The Ni-containing powder has a Ni content of not less than 40% and passes a 45 μm -mesh sieve at a proportion of not less than 90%. The iron alloy powder and the iron powder have a martensite structure or a tempered martensite structure.